

CLASSIFICATION ~~CONFIDENTIAL~~  
 SECURITY INFORMATION  
 CENTRAL INTELLIGENCE AGENCY  
 INFORMATION FROM  
 FOREIGN DOCUMENTS OR RADIO BROADCASTS

REPORT

50X1-HUM

CD NO.

COUNTRY USSR

DATE OF  
INFORMATION 1951

SUBJECT Economic; Technological - Automotive industry

DATE DIST. 14 May 1952

HOW  
PUBLISHED Monthly periodicalWHERE  
PUBLISHED Moscow

NO. OF PAGES 14

DATE  
PUBLISHED Jun - Dec 1951

LANGUAGE Russian

SUPPLEMENT TO  
REPORT

50X1-HUM

THIS DOCUMENT CONTAINS INFORMATION AFFECTING THE NATIONAL DEFENSE  
 OF THE UNITED STATES WITHIN THE MEANING OF ESPIONAGE ACT 50  
 U. S. C. 31 AND 32, AS AMENDED. ITS TRANSMISSION OR THE REVELATION  
 OF ITS CONTENTS IN ANY MANNER TO AN UNAUTHORIZED PERSON IS PRO-  
 HIBITED BY LAW. REPRODUCTION OF THIS FORM IS PROHIBITED.

THIS IS UNEVALUATED INFORMATION

SOURCE Avtomobil'naya i Traktornaya Promyshlennost'.

LISTS OF RESEARCH PROJECTS AND INNOVATIONS  
OF THE USSR AUTOMOBILE AND TRACTOR INDUSTRY

[Numbers in parentheses refer to appended sources.]

I. SCIENTIFIC RESEARCH AND EXPERIMENTAL WORK  
 CARRIED OUT BY INSTITUTES AND PLANTS OF  
 THE MINISTRY OF AUTOMOBILE AND TRACTOR INDUSTRY USSR

List No 6, June 1951

Moscow Automobile Plant imeni Stalin

- Study of the hardening capacity of structural steels.
- Experimental checking and machining of parts which turn at high speeds.
- Shot-blast treatment of cutting tools.
- Research on shot blasting of automobile parts.
- A technological process for rapid copperplating and a means of removing copper.
- Experimental development of a lapping process to replace grinding.
- A process for coating automobile parts with iron to restore them to working dimensions.
- Research on R1 high-speed steel.
- A rapid X-ray defectoscope that does not use film.

- 1 -

CLASSIFICATION ~~CONFIDENTIAL~~

STATE	<input checked="" type="checkbox"/> NAVY	<input checked="" type="checkbox"/> NSRB	DISTRIBUTION																	
ARMY	<input checked="" type="checkbox"/> AIR	<input checked="" type="checkbox"/> FBI																		

CONFIDENTIAL

50X1-HUM

An X-ray method of determining carbon content in casehardened layers.

A technological process suitable for use in mass production and for babbiting the compressor connecting rods of the ZIS-120 engine with Type BT babbit.

Diamond substitutes for truing grinding wheels.

Making centerless in-feed grinding automatic.

Study of the possibility of strengthening automobile bushings by reducing the thickness of the babbit layer.

Decreasing the quantity of residual austenite in the casehardened surfaces of ZIS-150 gears (made of 18KhGT steel) that have been hardened immediately after casehardening.

Heat-resistant 3KhVTF steel for press molds.

A process of heat-treating parts in muffleless furnaces which have a complete heat-treating cycle.

Brazing high-speed tips to tool shanks.

A method of enriching cupola-furnace blasts with oxygen.

Hardening capacity and mechanical properties of 18KhGT steel with minimum carbon content.

The new Kh12TF steel for making tools and dies used in cold stamping.

Laboratory research and production testing of forging hammer dies made of 5KhNT steel.

Combination cold upsetting of cap screws.

Using automatic, open-arc welding on direct current for welding the flanges and levers of the middle and rear axle shaft housings of the ZIS-151 truck, instead of automatic welding under a layer of flux on alternating current.

Precision casting of press-mold blocks for pressure casting and of plunger dies for headlight and lamp diffusers.

High-speed cutting on automatic machine tools.

Development, research, and construction of a new measuring system for balancing machines.

A method of anode-mechanical sharpening of profile and multiblade tools and metal cutters.

Results of factory testing of the ZIS-150 truck on liquefied gas on a run of 10,000 kilometers.

Wear of cylinders and piston rings of ZIS-110 engines.

Technological factors in high-speed countersinking of steel parts.

Development of procedures for quantitative-spectrum analysis of steel, cast iron, and nonferrous alloys.

- 2 -

CONFIDENTIAL

CONFIDENTIAL

50X1-HUM

Parkerizing piston rings to improve machining, eliminate scratching, and increase resistance to corrosion.(1)

List No 7, July 1951

NII Avtopriborov (Scientific Research Automobile Electrical Equipment, Carburetor, and Instruments Institute)

Improved stands for testing automobile condensers.

New types of plastics with improved electrical and mechanical properties for electrical equipment.

A new process for making ignition coils.

The technology of sheet stamping and drawing in the press shops of plants under Glavavtoelektropribor (Main Administration of Automobile Electrical Equipment Plants) and the development of an efficient process of stamping and drawing parts with flanges.

The development of substitutes for micanite for interlamination insulation on generators and starters.

The influence of temperature and other factors on the dislodging of active material from the positive plates of storage batteries.

Research on magnetos for small tractors.

Drawing up calculated norms for insulating, conducting, and impregnating materials.

Research on various types of separation for increasing the life of starting storage batteries.

Application of the results of work by NII Avtopriborov on cast magnets, further improvements in the process of making cast magnets, and the development of special magnetic alloys for chill casting.

Selection of an effective lubricant for electrical equipment and automobile instruments.

NII TVCh (Scientific Research Institute of High-Frequency Currents)

Calculation of magnetic systems with permanent magnets and selection of the best designs.

Research on the effect of copper admixtures on "al'ni" alloys with a high aluminum content.

Central Bureau for the Heating of Metals in an Electrolyte

A means of heating metals in an electrolyte of a given temperature gradient.(2)

- 3 -

CONFIDENTIAL

CONFIDENTIAL

List No 8, August 1951

50X1-HUM

Minsk Tractor Plant

Detecting defects in parts by means of magnetic defectoscopes.

Yaroslavl' Automobile Plant

Testing the gear and pinion drive of the oil pump for the YaAZ-204 engine.

Testing the rear-axle beam of the YaAZ-200 truck.

Testing experimental models of filter elements for the preliminary fuel filter.

Testing ST-25 starters.

Control road tests of the YaAZ-200V tractor truck with a semitrailer.

Research on the efficiency of the YaAZ-200 transmission.

Stand testing of the G-25 generator and the RR25 relay-regulator.

Testing the YaAZ-204 engine under various operating conditions.

Testing fuel pumps.

Testing the front springs of the YaAZ-200 truck.

Testing the rear springs of the YaAZ-200 truck.

Stand testing of the worm-gear pair of the YaAZ-200 steering gear.

Testing friction linings of the driven disk of the clutch for wear resistance.

Testing water radiators when the vehicle is stationary.

ENIIPP (Experimental Scientific Research Institute of the Bearing Industry)

An instrument for measuring the force of grinding.

A machine tool for grinding and lapping center holes.

Research on the selection of specifications for an abrasive tool for increasing the productivity of basic grinding operations.

A new method and fittings for machining inner rings of taper roller bearings on 1261-P semiautomatics.

Research on a method of centerless internal grinding of roller grooves of outer rings and the shaft holes of inner rings.

Rapid machining of bearing rings on MR-5 single-spindle semiautomatic lathes.

Development and adoption of a standard technological process for the mass production of balls.

Development of a method for protecting instrument bearings from corrosion.

- 4 -

CONFIDENTIAL

CONFIDENTIAL

50X1-HUM

Research and choice of specifications for abrasive bars for finishing the roller grooves of rings.

Research on the process of lapping the grooves of precision ball bearings.

ENIIPP-KP-23 indicator for measuring surface finish of the grooves of small rings.

A method of calculating [the dimensions of] the composite die for volumetric cold stamping of the outer rings of taper roller bearings.

A standard process of cold stamping the inner rings of taper roller bearings; design, preparation of fittings, and adoption in production.

Design and adoption of high-frequency electric grinding spindles in the bearing industry.(3)

List No 9, September 1951

TsKB (Central Design Bureau) of the Ball-Bearing Industry

Bearings for explosion-proof electric motors.

Installing antifriction bearings on railroad passenger cars and 4-8-4 locomotives [to replace sliding bearings].

An instrument for measuring radial play in radial ball bearings.

An instrument for measuring [thrust] play of assembled radial ball bearings with shaft diameter from 3 to 25 millimeters.

An instrument for measuring the position of grooves of the outer rings of radial ball bearings.

An instrument for measuring the shaft diameter of inner rings.

IM TsKB-7 stand for testing large bearings of common designations.

Cylindrical roller bearings with short cylindrical rollers and inserted flanges on the outer ring.

Moscow Automobile Plant imeni Stalin

A new process for machining cylindrical gear wheels.

The technological process of preparing a globoid gear for mass production.

Research on and adoption of a hard-alloy axial tool for machining operations on steel and cast-iron parts.

Research on and adoption of high-speed milling.

A standard light-signal arrangement for control devices.

Investigation and research on the best method of welding [compressed] air cylinders.

Gluing friction linings to brake shoes and clutch disks.(4)

- 5 -

CONFIDENTIAL

CONFIDENTIAL

50X1-HUM

List No 10, October 1951

Stalingrad Tractor Plant

Determining the silicon content of construction steels by spectrum analysis.

Investigation of the most accurate method for measuring hardness of sleeves.

Determining the amounts of NaOH, Na<sub>2</sub>CO<sub>3</sub>, and NaAlO<sub>2</sub> when they are all present in a solution.

Development of a method for determining the manganese content of ferrous and nonferrous alloys by potentiometer titration.

Determining the copper content of babbitts, irons, and steels by the internal electrolysis method.

The calorimetric method of determining nickel content.

TsKB (Central Design Bureau) of Glavmotoveloprom  
(Main Administration of the Motorcycle and Bicycle Industry)

Investigation of methods for increasing the wear resistance of the cylinder walls of engines.

Research on defects in motorcycle and bicycle parts due to internal faults. The use of metal-ceramic parts for motorcycles.

Statistical control methods at the Moscow Motorcycle Plant.

Research on the surface finish of several parts of bicycle bushings.

Determining the moment of inertia of motorcycles and [their] front forks.

NAMI (All-Union Scientific Research Automobile  
and Automobile Motor Institute)

Research on the work of the K-80 carburetor (MKZ-16A).

Research on the work of carburetors with a variable aperture diffuser which simultaneously acts as a throttle.

Testing an all-speed governor for the YaAZ-204 engine.

Gas cylinder ZIS-150 and GAZ-51 trucks of increased power and economy.

Increasing the strength of casehardened steels used in important automobile gears.

Testing brake mechanisms with floating shoes for wear.

Research on trimetallic (reticulated) bearings and testing them in automobile motors. (5)

List No 11, November 1951

TsKB (Central Design Bureau) of the Ball-Bearing Industry

Research on the wear resistance of bearings in automobiles.

- 6 -

CONFIDENTIAL

CONFIDENTIAL

50X1-HUM

The IM TsKB-31 stand for testing bearings parts and special models for wear.

Planning, building, and testing instruments for measuring the external diameter of the outer rings of bearings.

Stand testing of antifriction bearings of ZIS-150 transmissions.

A set of photographic standards of the quality of working surfaces of instrument bearing parts, for use in intraplant control.

NATI (State Scientific Research Tractor Institute)

Low-temperature gas cyaniding of cutting tools at the Khar'kov Tractor Plant.

Research on the operation of tractors with suspension agricultural equipment.

Testing and research on experimental models of a stepless friction transmission for the Kirovets D-35 tractor.

Selection of a type of steel and completion of the design for KhtZ caterpillar treads with replaceable metal sleeves.(6)

List No 12, December 1951

NAMI (All-Union Scientific Research Automobile and Automobile Motor Institute)

Stability of operation of the KD-35 engine at various speeds with an all-speed mechanical ball-type governor.

Research on the operating indexes of the YaAZ-204 engine.

Yaroslavl' Automobile Plant

Testing and completing the design of the oil-pump gears of the YaAZ-204 engine.

Selective testing of various types of sleeves for the cylinders of the YaAZ-204 engine.

Testing rear axle beams of the YaAZ-200 truck for fatigue.

Testing rubber cushions for the springs of the YaAZ-210 truck.

Moscow Automobile Plant imeni Stalin

Selection of a working fluid for automobile hydrotransformers.

Dnepropetrovsk Automobile Plant

Study of the properties of steels for rear axles.

Research on the strength of forged rear axle beams made from standard materials.

- 7 -

CONFIDENTIAL

CONFIDENTIAL

50X1-HUM

The use of induction heating using current of industrial frequency in rolling automobile wheel disks.

Perfecting and adopting a method of precision casting of parts and tools.

Designing of a stand (press) for testing the strength of springs.

Perfection of a method of removing (otryva) paint in a high-tension electromagnetic field.

Making and testing an instrument for determining the cyclic resilience of steel and cast iron.

Research on the operation of brake boosters [servomechanisms], developing a design, and making experimental models.

Designing a vibration stand for testing steering-gear arms and shafts, steering knuckle-gear rod arms, and steering knuckle arms for fatigue.

Design of a stand for testing shock absorbers for wear.

Design of a stand for testing fan belts.

Design of a stand for testing brake valves (tormozniy kran) of the ZIS-150 and YaAZ-200 trucks. (7)

II. INVENTIONS AND INNOVATIONS PUT INTO PRACTICE  
IN ENTERPRISES OF THE MINISTRY  
OF AUTOMOBILE AND TRACTOR INDUSTRY USSR

List No 3, June 1951

Gor'kiy Automobile Plant imeni Molotov

A method of soldering the connections of radiator cooling tubes with soft solder, and an apparatus for carrying out this method. -- V. F. Gulyayev

Reclaiming rejected blocks (due to leaking cylinders) by silver-alloy brazing. -- I. I. Kobin, Yu. A. Luk'yanov, and others

An automatic photopyrometer. -- Bureau of Automatization

Equipment for machining the base of engine cylinder blocks. -- D. V. Kazmenko

An automatic preliminary (podnaladchik set-up device) for centerless grinding machines. -- N. I. Mendelenko

Design of a spring [controlled] pouring basin for precision casting. -- S. I. Nikol'skiy

A protective device for the gears of forging-machine drive shafts. -- P. I. Nagernichnykh

Cutting piston-pin blanks on a press instead of a lathe. -- V. F. Sadulin and others

- 8 -

CONFIDENTIAL



CONFIDENTIAL

50X1-HUM

Chrome plating the working parts of cold-stamping dies. -- S. M. Korbman and others

Replacing soft bars for lapping with hard bars. -- V. I. Samsonov

An attachment for stitching weatherstripping around the door openings of the M-20 car. -- N. Ya. Kalachev

Polishing rollers and flexible attachments for making profiles. -- N.A. Lebedev.

Using two-high straightening rolls for reprocessing corrugated scrap of metal so that they can be used to make other parts. -- M. S. Slutsker and N. V. Kokurin

An attachment for machining cylinder blocks, using the two outside cylinders as a guide. -- V. M. Yudin, A. Ya. Mol'yev, and others

An overhead shuttle conveyer for casting. -- A. A. Tarin and A. S. Oblomov (1)

List No 4, July 1951

Kharkov Tractor Plant imeni Ordzhonikidze

Replacing firebrick linings with linings of pig iron in the zone above the segments of cupola furnaces. -- I. S. Vashchenko

Making parts for flask hinges by casting instead of rolling. -- M. D. Ovcharenko and L. I. Lapko

A method of preparing talc pigments for coloring cores without dextrin. -- K. D. Pupko and others.

Utilization of used abrasive wheels (not fully worn out) on small suspension-type grinders, with a change in grinding speed. -- S. M. Lemesh

Installing light portal-type cranes to replace pneumatic telfers for carrying castings from conveyers to cleaning drums. -- A. A. Ridnyy and others

Utilization of chips of high-speed cutting steel for fusing onto cutting tools. -- P. F. Belik and others

Vladimir Tractor Plant imeni Zhdanov

A stand for testing shake-out grate vibrators. -- G. Yu. Andryushkin

Krasnaya Etna Plant

A means of increasing the output of PSK-210 electric furnaces for annealing steel bands by increasing the heating capacity of the elements in three zones and lowering the height of the support under the roll of steel. -- K. I. Nosov and others

Setting up intermediate tables instead of intermediate baths between pickling baths. -- V. A. Gorokhov

Dividing round dies with square necks for cold upsetting presses by stamping when cold with special punches on a hydraulic press. -- A. I. Konkin and others

- 9 -

CONFIDENTIAL

CONFIDENTIAL

50X1-HUM

A new method of heat treating spring wire by means of high-frequency currents. -- V. F. Belik and others

Moscow Small-Displacement Automobile Plant

A means of increasing the strength of rivet heads for rivets used on the base of the body. -- A. A. Bateyev

A new design for heat-resistant crucibles. -- P. I. Vostrikov

A method of heating soldering irons in muffle furnaces. -- A. P. Fokin

A fixture for piercing slots in door handles. -- M. P. Basnyatykh

A device for applying glue to sponge rubber on the automobile body. -- G. M. Pakholkin(2)

List No 5, August 1951

Gor'kiy Automobile Plant imeni Molotov

Changes in the design of the front fender bracket so that it can be made from leftover pieces of metal. -- K. V. Grishanin

A machine tool for sawing boxes. -- I. A. Zhukov

An apparatus for accurate measurements of the pressure of compressed air in tanks of nitrodes. -- S. E. Voronin and I. S. Vershinin

Making the support washer of the rear-axle drive pinion and the planet pinion washers of phosphated soft steel instead of tombac. -- V. N. Belyshev

Using electrically welded instead of seamless tubing for the water and oil systems of automobiles. -- S. V. Gutorovich

An automatic machine for assembling tubular oil radiators for trucks. -- E. G. Rutter, B. A. Chelishchev, and D. Ye. Burshteyn

Khar'kov Bicycle Plant

Design for an electromagnetic coercive-force meter for checking the quality of heat treatment of the rear-wheel hub drive cone. -- D. M. Layko

A special broach for internal channeling of the brake drum of the rear-wheel hub in one cut. -- S. M. Ioffe

State Bearing Plant, Order of Lenin

An attachment for feeding the strip when stamping separators on multi-spindle presses. -- A. I. Sheftelevich

An instrument for measuring the base and width of roller grooves on inner rings. -- I. G. Yemel'yanov

An attachment for making up sets of balls for assembling bearings. -- B. N. Pereygin(3)

- 10 -

CONFIDENTIAL

CONFIDENTIAL

50X1-HUM

List No 6, September 1951

Ural Automobile Plant imeni Stalin

Casting brake pedals instead of forging them. -- V. D. Shepel'

Metalizing instead of welding cylinder blocks that have rough spots on the surface of the holes for the dynamo and water pump after final boring. -- A. O. Savenkov and others

Use of a cast rib in the valve box of the cylinder-block water jacket to eliminate rejects due to cracking. -- B. N. Rozbkov

Ul'yanovsk Automobile Plant imeni Stalin

Reducing the height of loading baskets in the casehardening furnaces from 340 to 270 millimeters, making it possible to load four baskets simultaneously instead of three, and increasing the effective capacity of the furnace by 20 percent. -- I. I. Achter and K. M. Gendel'man

A new-design suspension rack to make it possible to increase the number of parts being painted simultaneously. -- N. P. Otpushchennikov

L'vov Fork Lift Plant

Making milling cutters out of worn out drills. -- I. M. Machinskiy

Plants of Glavavtotraktorodetal' (Main Administration of Automobile and Tractor Spare Parts)

Changes in the design of differential gear rims for the SKhTZ wheeled tractor to increase their wear resistance without reducing reversibility. -- N. A. Baykov

Anticorrosion processing of ferrous metals in a solution of sodium nitrite. -- V. O. Melyavskaya

Utilizing cast-iron chips by remelting them in a cupola furnace without preliminary briquetting. -- R. A. Minikh, I. D. Kuryachiy, and M. G. Bezdol'nyy

Design of a feeder that will make it possible to divide piston rings cleanly from the pouring gates. -- A. L. Yampol'skiy

An attachment for lining up piston-ring joints for simultaneous machining. -- N. N. Krantov

Pneumatic equipment for moving the traverse of a molding machine when molding piston rings. -- V. V. Kuznetsov

A hatch for rapid changing of hearth heat elements in PN-15 electric furnaces. -- R. G. Gimer

A device for checking splined ring gauges for broaches. -- V. O. Luss

Making countersinks out of reamers that are worn out of size. -- K. N. Nesterenko

A swivel attachment for milling the flanges and bosses of the ZIS-5 exhaust manifold. -- V. P. Kitayev

- 11 -

CONFIDENTIAL

CONFIDENTIAL

50X1-HUM

A machine for laying out the cardboard in making cardboard boxes for ZIS-5 pistons. -- A. P. Petrunina and B. P. Dmitriyevskiy (4)

List No 7, October 1951

Stalingrad Tractor Plant

A special chunk for reclaiming connecting rods rejected because of displaced caps. -- K. A. Kornutenko and others

An attachment for grinding rotor sleeves. -- N. I. Kriventsov

Making aluminum electrodes by chill casting instead of machining. -- A. P. Papkov

Plants of Glavpodshipnik (Main Administration of the Bearing Industry)

An instrument for controlling the clearance of bearing separators. -- V. P. Kitayev

Composite dies for cold stamping of rollers. -- L. F. Akhmostin and P. Ya. Komarov

Automatic block system for four-spindle automatic machine tools. -- N. V. Demidov and D. A. Blankman

Stamping inner rings for barrel-shaped rollers with closed dies. -- P. Ya. Komarov

Michurinsk Plant imeni Lenin

Mechanical removal of feeders and gates from piston rings cast in pairs. -- A. P. Babaytsev

A removable blade for the instrument used for final calibration of piston rings. -- I. S. Bakholdin

Vladmir Avtopribor Plant

A device with a synchronous motor for regulating speedometers. -- M. N. Belikov, A. P. Mel'zeninov

A regenerating device for reclaiming polishing material. -- Ye. G. Lipatov (5)

List No 8, November 1951

Moscow Automobile Plant imeni Stalin

A fluid for fluorescent defectoscopes. -- A. I. Klimov, A. Ye. Shevelev, and others

An appliance for attaching and detaching boxes of parts to the trolleys of overhead conveyers. -- G. I. Gulyayev, K. I. Baranov, and others

Automatic loading of hoppers. -- P. P. Karochkin and M. T. Kovalenko

A machine for automatic single-direction roller welding. -- Design Bureau for Body and Welding Work

- 12 -

CONFIDENTIAL

CONFIDENTIAL

50X1-HUM

An appliance for inserting sealing material in the rubber framing of door and window glass. -- I. M. Kurochkin

A bearing alloy with a zinc base. -- V. G. Ageyenko, A. M. Vetvitskiy, and M. Kh. Tokar'

An attachment for mechanical ejection of castings from press molds. -- N. P. Filippov

Cold upsetting and rolling of tubes of the steering-gear case cover instead of soldering. -- K. I. Romanov and G. Ya. Savvateyev

Combination grinding wheels, with the idle portion made of scraps of abrasive materials bonded together with vulcanite. -- N. A. Potrubach and A. V. Mistryukov

A device for automatic operation of a high-frequency hardening machine. -- K. Z. Shepelyakovskiy, S. Ye. Ryskin, and I. I. Kantor

Single-stroke upsetting press with two dies. -- G. L. Ivanov

A device for removing excess tin from the surface of a moving steel strip in the continuous production of babbited steel strips. A. V. Lakedemonskiy, V. P. Dorynin, and others

Tool steel for dies used in cold stamping. -- D. I. Kostenko and A. D. Assonov

Steel for cold stamping. -- N. K. Labunin and A. D. Assonov

Multicutter head for threading globoid worms. -- V. A. Klimenko and V. D. Saionov

Facing the cones of steering worms with diamond cutters instead of grinding them. -- M. R. Zdanovskiy and others

Copperplating the cast-iron tubes for the radiator tanks of the ZIS-120 engine instead of tinning them. -- S. N. Ignatchenko(6)

List No 9, December 1951

Moscow Automobile Plant imeni Stalin

Use of rubber sticks impregnated with emery dust for polishing parts instead of using emery paper. -- V. I. Chernyayev

An attachment for clamping the condenser-coil pipe of home refrigerators. -- I. M. Bocharov

Using exhaust steam from hammers in the forge shop for preheating "termutirovanny" [sic; possibly from the Permutit process] water for TETs (Heat and Power Stations) and transmitting it in pipes with an increased load. -- G. A. Shugay, K. V. Stroganov, and others

Making a V-belt from remnants of cord. -- M. Kh. Tokar', V. G. Ageyenko, and A. M. Vetvitskiy

- 13 -

CONFIDENTIAL

CONFIDENTIAL

50X1-HUM

Kharkov Tractor Plant

- A swivel attachment for welding clutch pedals. -- F. F. Kiyashko
- Cooling the anodes of generator tubes by a system of glass tubes. -- A. P. Budolenko
- An attachment for clamping high-pressure tubes. -- A. I. Serdyukov
- An attachment for cutting springs in one cut and simultaneously computing the number of turns. -- N. F. Kulish
- A brake in the turntable of a vertical lathe. -- I. A. Grenkin
- A device for checking skew of frames. -- G. I. Ageyev
- Making collets for automatic machine tools from 60G steel instead of 20X steel. -- Ye. A. Khomutetskaya
- A universal former for winding electric motor sections. -- P. A. Sivakorskiy
- Mounting shoe instead of disk brakes on tackle for pouring molten metal. -- I. D. Yakunin and B. F. Vodopyanov
- A sectional punch for stamping bands for packing glands. -- M. E. Goncharov (7)

SOURCES

1. Moscow, Avtomobil'naya i Traktornaya Promyshlennost', No 6, Jun 51
2. Ibid., No 7, Jul 51
3. Ibid., No 8, Aug 51
4. Ibid., No 9, Sep 51
5. Ibid., No 10, Oct 51
6. Ibid., No 11, Nov 51
7. Ibid., No 12, Dec 51

- E N D -

- 14 -

CONFIDENTIAL